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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,936	12/03/2003	Michael L. Walker	194-23497-USCP	5392
24923	7590	08/27/2004	EXAMINER	
PAUL S MADAN MADAN, MOSSMAN & SRIRAM, PC 2603 AUGUSTA, SUITE 700 HOUSTON, TX 77057-1130			ANTHONY, JOSEPH DAVID	
			ART UNIT	PAPER NUMBER
			1714	

DATE MAILED: 08/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/726,936

Applicant(s)

WALKER, MICHAEL L. S. Q.

Examiner

Joseph D. Anthony

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-46 is/are pending in the application.
- 4a) Of the above claim(s) 33-46 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 23-32 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 23-32, drawn to corrosion resistant brine, classified in class 252, subclass 387.
 - II. Claims 33-40 and 43-46, drawn to a method of making a corrosion resistant brine, classified in 252, subclass 397
 - III. Claims 41-42, drawn to method of using corrosion resistant brines, classified in class 166, subclass 242.4.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product as claimed can be used as a treatment of psoriasis of the skin. Further note that the process of use claims also read on brine compositions that are outside the scope of the product claims of Group I since the product of use claims do not require the density range of about 8.4 to about 22.5 pounds/gal.
3. Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2)

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that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by adding water-soluble carbonate to an aqueous solution containing zinc cations in which some precipitate is formed as long as there is a subsequent filtration step to get the final brine solution. Further note that the process of making claims also read on making brine compositions that are outside the scope of the product claims of Group I since the product of making claims do not require the density range of about 8.4 to about 22.5 pounds/gal.

4. Inventions II and group III are patentable distinct since the subject matter of invention II claims are directed to a process of making a brine solution whereas invention III claims are directed to a process of using a brine solution in a method of pumping the brine downhole in a hydrocarbon recovery operation.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

6. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

During a telephone conversation with David L. Mossman on 08/19/04 a provisional election was made with traverse to prosecute the invention of Group I, claims 23-32 and

22. Affirmation of this election must be made by applicant in replying to this Office

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action. Claims 33-46 have been withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

8. Claims 23, 25-27 and 30-32 are rejected under 35 U.S.C. 102(b) as being Biener U.S. Patent number 4,943,432.

Biener teaches salt mixtures for the treatment of psoriasis. Applicant's claims are deemed to be anticipated over the 12% by weight aqueous salt solution made from adding the dry salt mixture, as set forth in the Example in column 4, to water. Applicant's claimed true crystallization temperature (TCT) and last crystal to dissolve (LCTD) limitations are deemed to be inherently met by said Example. Likewise Biener's aqueous salt solution of the Example is deemed to have a brine density that falls within applicant's claimed brine density range.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 24 and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Biener U.S. Patent number 4,943,432.

Biener has been described above. Biener differs from applicant's claimed invention in that there is no direct teaching (i.e. by way of an example) to aqueous brine fluids that have applicant's specifically claimed additive to water-soluble cation mole ratio and weight percentage range. There is also no direct

teaching (i.e. by way of an example) to an aqueous salt mixture that actually contains a non-emulsifier and at least one wetting agent.

It would have been obvious to one having ordinary skill in the art to use the broad disclosure of Biener, as set forth in column 2, lines 10-40 as strong motivation to actually make aqueous brine solutions that meet applicant's specifically claimed additive to water-soluble cation mole ratio and weight percentage range, since applicant's claimed subject matter falls within the disclosed subject matter of Biener. Likewise to it have been obvious to use Biener's disclosure of column 3, lines 38-45, and column 4, lines 4-26 as strong motivation to add additional components, such as non-emulsifiers and at least one wetting agent to the aqueous salt solution since both said components are directly disclosed as optional additional components.

11. Claims 23-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0 845 520 A1

EP teaches stabilized aqueous brines containing soluble zinc salts and an bridging salts, such as calcium carbonate and magnesium carbonate mixtures, see abstract, and page 5, lines 13-16. Applicant's claimed true crystallization temperature (TCT) and last crystal to dissolve (LCTD) limitations are deemed to be met by the Examples of EP since they are so broad. Likewise EP's aqueous salt solution of the Examples are deemed to have a brine density that falls within applicant's claimed brine density range. EP differs from applicant's claimed

invention in that there is no direct teaching (i.e. by way of an example) to an aqueous brine that actually contain magnesium carbonate.

It would have been obvious to one having ordinary skill in the art to use the disclosure of EP to adding calcium carbonate and magnesium carbonate mixtures as effective bridging agents as motivation to actually add such bridging agents to the taught aqueous zinc containing brine compositions.

12. Claims 23-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Giddy GB 799,192 in view of Mondshine U.S. Patent Number 4,175,042 (for claims 30 only).

Giddy discloses corrosion resistant aqueous brines that comprise water soluble salts, such as those salts that have a cation selected from zinc, magnesium etc. and an anion selected from chlorides, bromides etc., see page 1, line 78 to Page 2, line 3. The said corrosion resistant brines comprise a corrosion inhibiting additive, such as sodium carbonate, see page 2, lines 20-50. Applicant's claimed true crystallization temperature (TCT) and last crystal to dissolve (LCTD) limitations are deemed to be met by the Examples of Giddy since they are so broad. Likewise Giddy's aqueous salt solutions of the Examples are deemed to have a brine density that falls within applicant's claimed brine density range. Giddy differs from applicant's claimed invention in the following ways: 1) there is no direct teaching (i.e. by way of an example) to an aqueous brine that actually uses sodium carbonate as the corrosion inhibiting

agent., 2) there is no direct teaching (i.e. by way of an example) to aqueous brine fluids that have applicant's specifically claimed additive to water-soluble cation mole ratio and weight percentage range., 3) there is no direct disclosure to applicant's claimed additive powder size range.

Mondshine teaches high density brines that have corrosion reducing agents (called bridging agents), such as sodium carbonate or sodium bicarbonate having a particle size range of about 5 microns to about 800 microns, added thereto, see abstract, and column 3, line 64 to column 4, line 48. Said brines function as well completion and work over fluids.

It would have been obvious to one having ordinary skill in the art to use the broad disclosure of Giddy as strong motivation to make aqueous brine solutions that actually use sodium carbonate as the corrosion-inhibiting component, since sodium carbonate is directly suggested by the patent for this purpose.

It would also have been obvious to one having ordinary skill in the art to use the broad disclosure of Giddy as strong motivation to make aqueous brine solutions that meet applicant's specifically claimed additive to water-soluble cation mole ratio and weight percentage range, since applicant's claimed subject matter falls within the disclosed subject matter of Giddy.

It would also have been obvious to one having ordinary skill in the art to use the clear teaching of Mondshine to the use of sodium carbonate or sodium bicarbonate particles having an effective particle size range of about 5 microns to

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about 800 microns as motivation to actually use sodium carbonate or sodium bicarbonate particles having said size range in the aqueous brines taught by Giddy.

13. Claims 23-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Romenesko et al. U.S. patent number 4,381,241 in view of Mondshine U.S. Patent Number 4,175,042 (for claims 30 only).

Romenesko et al teaches invert emulsion for well-drilling comprising: A) a discontinuous aqueous brine phase, B) a liquid hydrocarbon as a continuous phase and C) polydiorganosiloxane, see abstract and column 2, lines 10-45. The aqueous brine that is subsequently added to the other components to make said invert emulsion comprises salts that are typically used in the well-drilling art such as sodium chloride, **sodium carbonate**, potassium chloride, **potassium carbonate**, calcium chloride, calcium bromide, **zinc chloride**, **zinc bromide** and mixtures thereof, see column 3, lines 26-68 and the examples. Applicant's claimed true crystallization temperature (TCT) and last crystal to dissolve (LCTD) limitations are deemed to be met by the Examples of Romenesko et al. since they are so broad. Likewise Romenesko et al's said aqueous salt solutions are deemed to have a brine density that falls within applicant's claimed brine density range. Romenesko et al differs from applicant's claimed invention in the following ways: 1) there is no direct teaching (i.e. by way of an example) to an aqueous brine composition that actually comprise a zinc salt in combination with sodium or

potassium carbonate, 2) there is no direct teaching (i.e. by way of an example) to aqueous brine fluids that have applicant's specifically claimed additive to water-soluble cation mole ratio and weight percentage range., 3) there is no direct disclosure to applicant's claimed additive powder size range

Mondshine has been described above.

It would have been obvious to one having ordinary skill in the art to use the broad disclosure of Romenesko et al as strong motivation to make aqueous brine solutions that actually comprised a zinc salt with sodium carbonate or potassium carbonate since the zinc salt is a preferred salt and the sodium carbonate and/or potassium carbonate are both directly suggested by the patent to be effective when used in mixtures with other salts such as zinc bromide and/or zinc chloride.

It would also have been obvious to one having ordinary skill in the art to use the broad disclosure of Romenesko et al as strong motivation to make aqueous brine solutions that meet applicant's specifically claimed additive to water-soluble cation mole ratio and weight percentage range, since applicant's claimed subject matter falls within the broad concentration of Romenesko et al.

It would also have been obvious to one having ordinary skill in the art to use the clear teaching of Mondshine to the use of sodium carbonate or sodium bicarbonate particles having an effective particle size range of about 5 microns to about 800 microns as motivation to actually use sodium carbonate or sodium

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bicarbonate particles having said size range in the aqueous brines taught by Giddy.

Response to Arguments

14. Applicant's argument filed with this CIP application have been noted but are not deemed to overcome the above outstanding prior-art rejection. Additional examiner comments are found below.

The heart of applicants' argument for patentability for their claimed inventions is that the applied prior-art does not directly teach adding water-soluble carbonate or bicarbonate to aqueous brine in powder form to raise the solution pH without causing precipitation. The examiner takes issue with this because a look at the applied references clearly reveals that the carbonate and bicarbonate compounds used by the prior-art references are added to aqueous solutions in the form of dry powder salts. Furthermore, even if such was not the case, such is deemed to be wholly irrelevant to elected claims 23- 32 since these are composition claims in "product-by-process" format. As such, Claims 23-32 are not drawn to a method of making a corrosion resistant brine fluid. As applicants should be well aware the process in a product by process claim is given little weight. As long as the applied prior-art teaches/suggests applicants claimed product then the claims are anticipated/obvious even though the prior-art discloses a different process of making their product than the process applicants use to make their product. The examiner also holds that the pH of the solutions

containing the additive water-soluble carbonate or bicarbonate is higher than a corresponding solution that does not contain such additives.

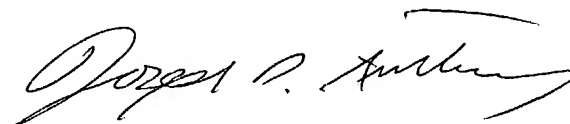
Finally, applicant's remarks that the claimed invention is drawn to high-density brines is clearly false since the bulk density of pure water is 8.337 lb/gal. and applicant's claimed brines have a density within the range of **about 8.4** to about 22.5 lb/gal. Applicant's claimed brines can have so little salt in them that they would read on tap water/well water that one could drink.

Prior-Art Cited But Not Applied

15. Any prior-art reference which is cited on FORM PTO-892 but not applied, is cited only to show the general state of the prior-art at the time of applicant's invention.

Examiner Information

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Joseph D. Anthony whose telephone number is (571) 272-1117. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on (571) 272-1119. The centralized FAX machine number is (703) 872-9306. All other papers received by FAX will be treated as Official communications and cannot be immediately handled by the Examiner.



Joseph D. Anthony
Primary Patent Examiner
Art Unit 1714

8/19/04